Regional Sediment Management Plan Development throughout California

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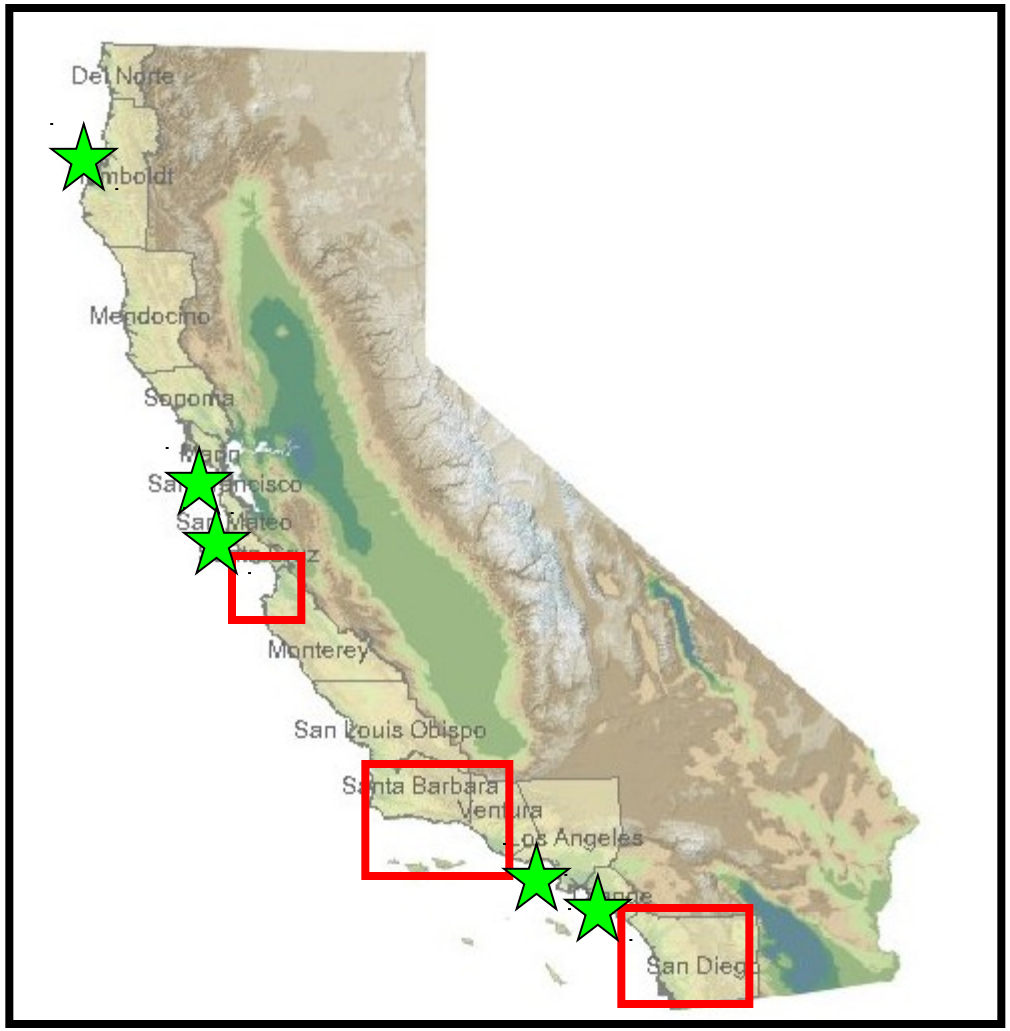
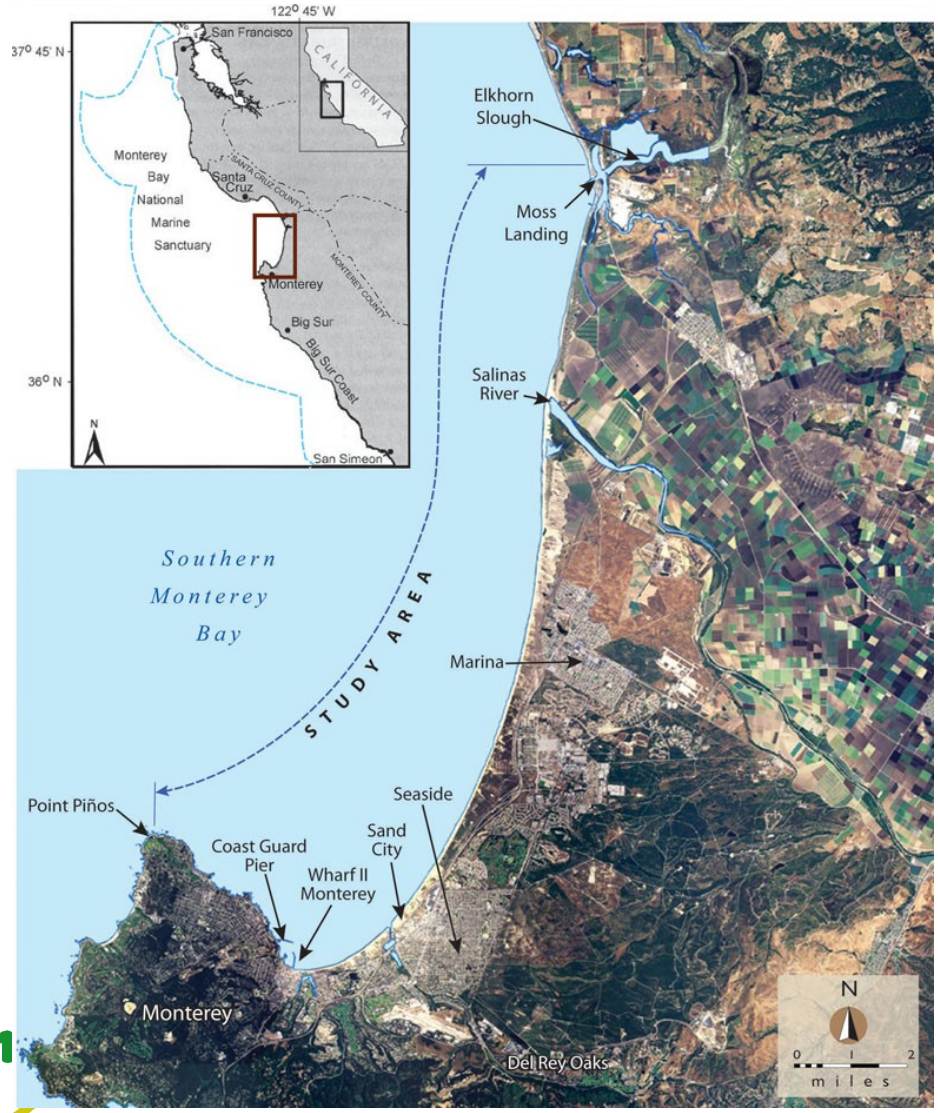
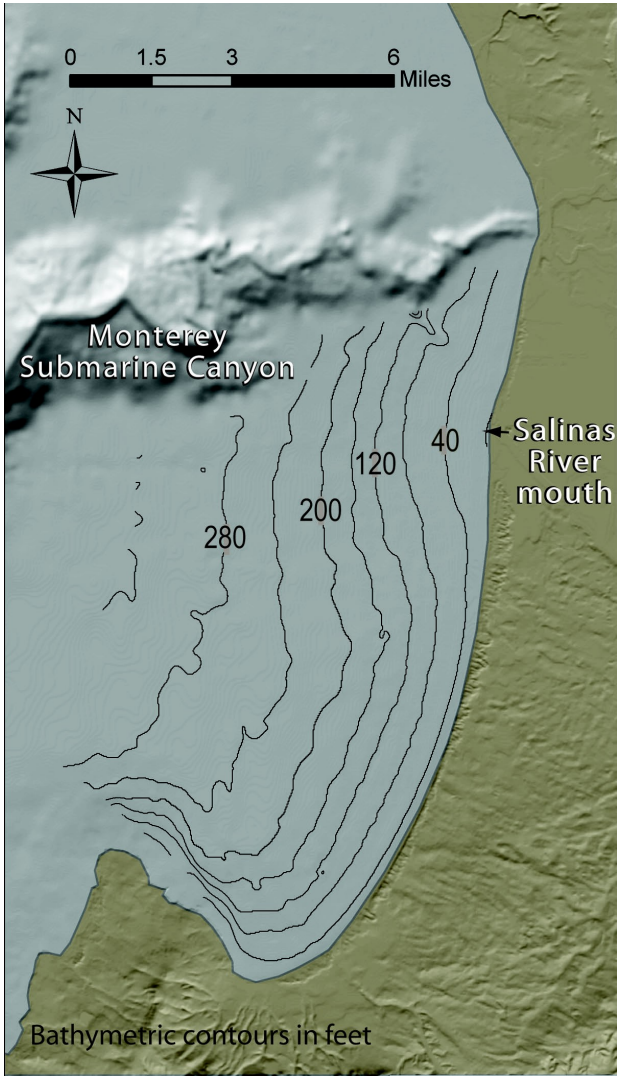
Los Angeles District

Coastal Sediment Management Workgroup

- ✓ **Formulate and seed regional consensus-driven sediment management policy and guidance**
- ✓ **Restore and maintain coastal beaches and other critical areas of sediment deficit; reduce the proliferation of protective shoreline structures; sustain recreation and tourism; enhance public safety and access; and, restore coastal sandy habitats.**

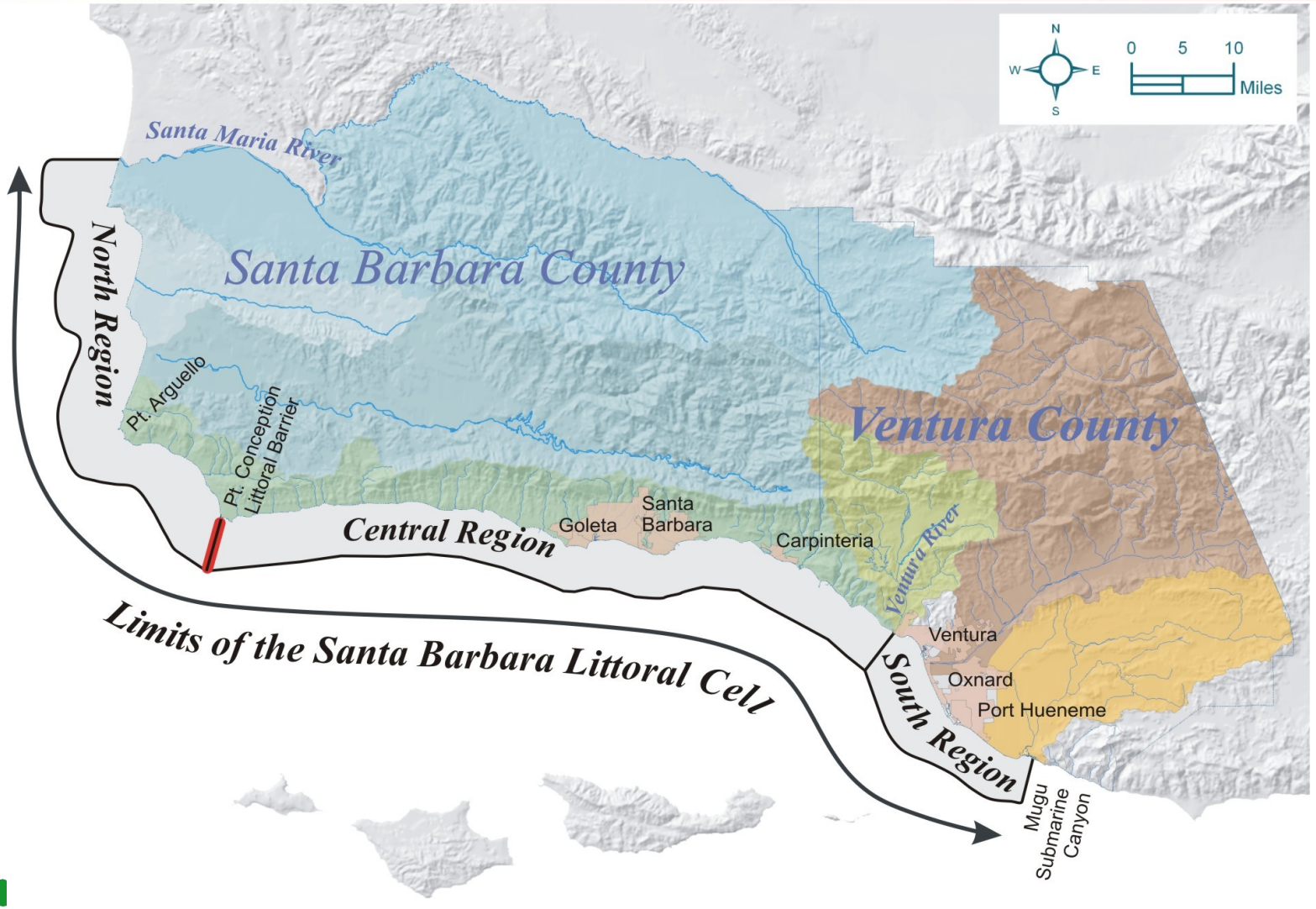






Courtesy: Doug Smith (CSUMB)

Coastal Sediment Management Workgroup



Coastal Sediment Management Workgroup

Coastal Sediment Management Workgroup

Lessons Learned

- Involve **all local jurisdictions** at the **beginning** of the process.
  - Effective Plan implementation requires MOU/other agreement covering entire littoral cell: regional permits, funding, project assistance
- **Stakeholders ID sediment issues** of concern at early stages and provide thoughts on possible solutions
- Incorporate Plan, when developed, into Local Coastal Plans and General Plans
- **Continual Involvement of the policy people** is important in order to develop an implementable plan.
- **Focus on the 80%** of the points that everyone agrees on rather than on the 20% that people didn't agree upon.
- Important to **emphasize soft solutions**.
- Data gaps
  - Benefitted from original RSM plan developed in the early 90s
  - **Sediment transport/budget groundwork** was already laid out
  - Greatly benefitted from **regional USGS studies**
- Having an **easily readable Plan** is important to getting buy-in from public and local managers and politicians.

San Diego Coastal Regional Sediment Management Plan

Coastal Engineering Research Board
June 4, 2009

SANDAG

The Plan Region

Regional Vision

- Shoreline Preservation Working Group
  - ~ Provides guidance
  - ~ Technical expertise
- Shoreline Preservation Strategy
  - ~ Adopted in 1993
  - ~ Beach building and maintenance program to protect and restore regional beaches
  - ~ Beach sand replenishment is preferred approach
  - ~ On-going, long term commitment required to implement

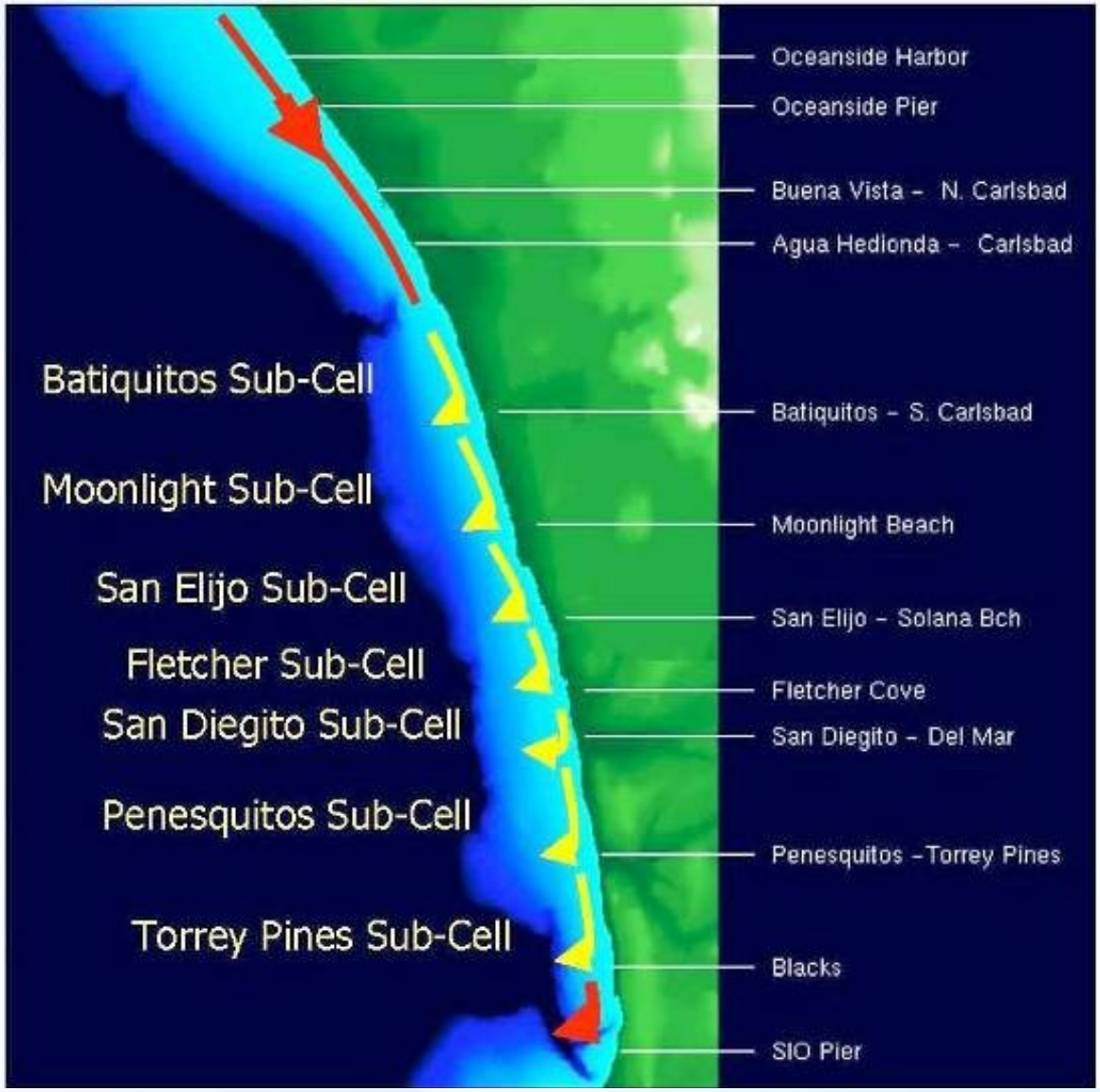
Major Plan Components

- Coastal Processes
- Biological Constraints
- Sand Sources and Receiver Sites
- Sediment Management Solutions
- Funding Sources
- Permitting Requirements
- Governance Structure and Implementation
- Coordination with State Regulatory Programs
- Monitoring
- Data Gaps
- Recommendations

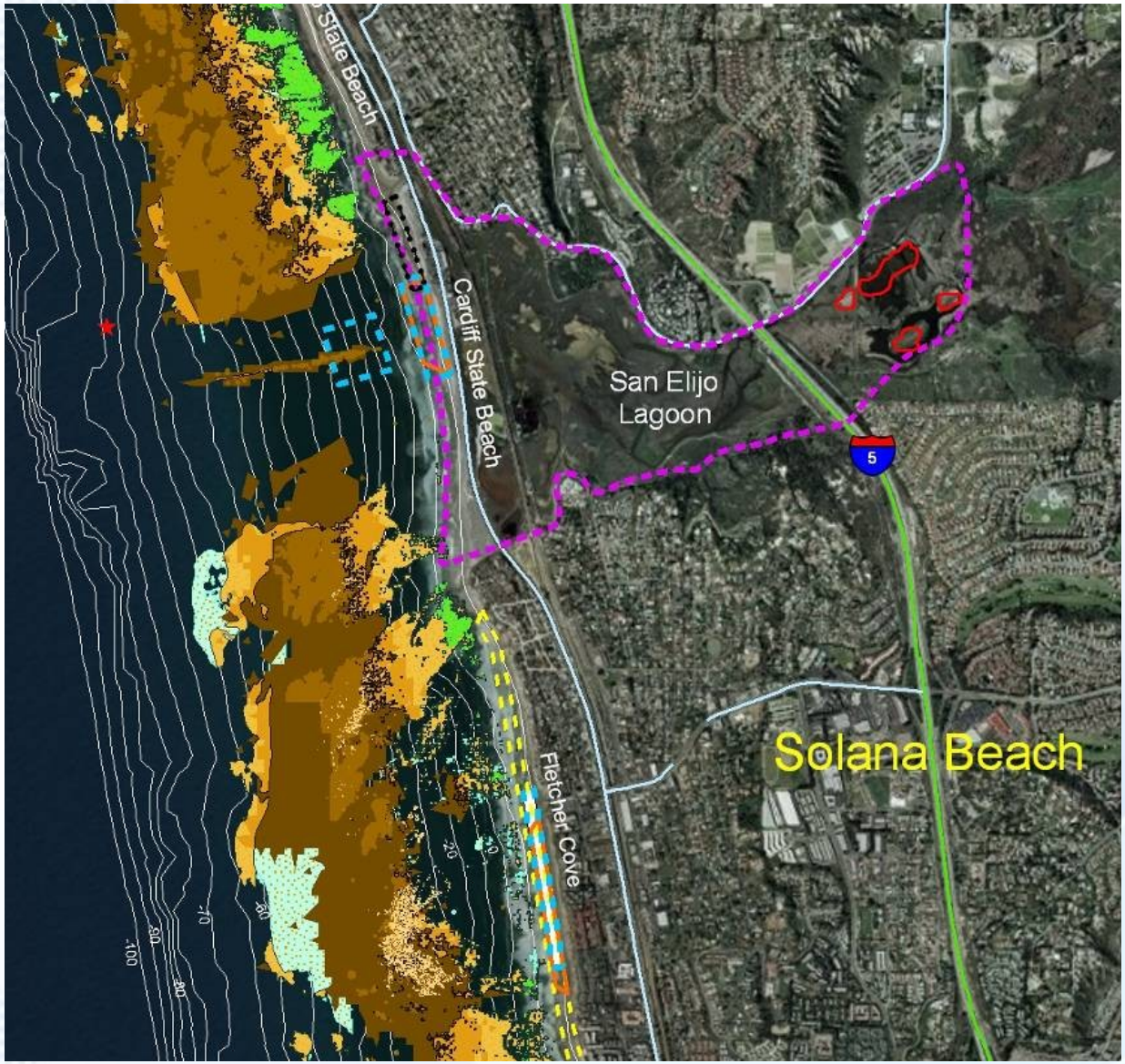
Regional Sand Budget Projections

- Region needs at least 30 million cubic yards to be completely restored, and 400,000 cubic yards per year as maintenance (SPS ’93)
- 400,000 cubic yards per year either completely dispersed or lost based on 2.1 million cubic yards of the RBSP ’01 lasting for 5 years (CF ’07)
- Adding 1 million cubic yards per year would offset the 400,000 cubic yards per year dispersion/loss rate and supply the 30 million cubic yards need over 50 years

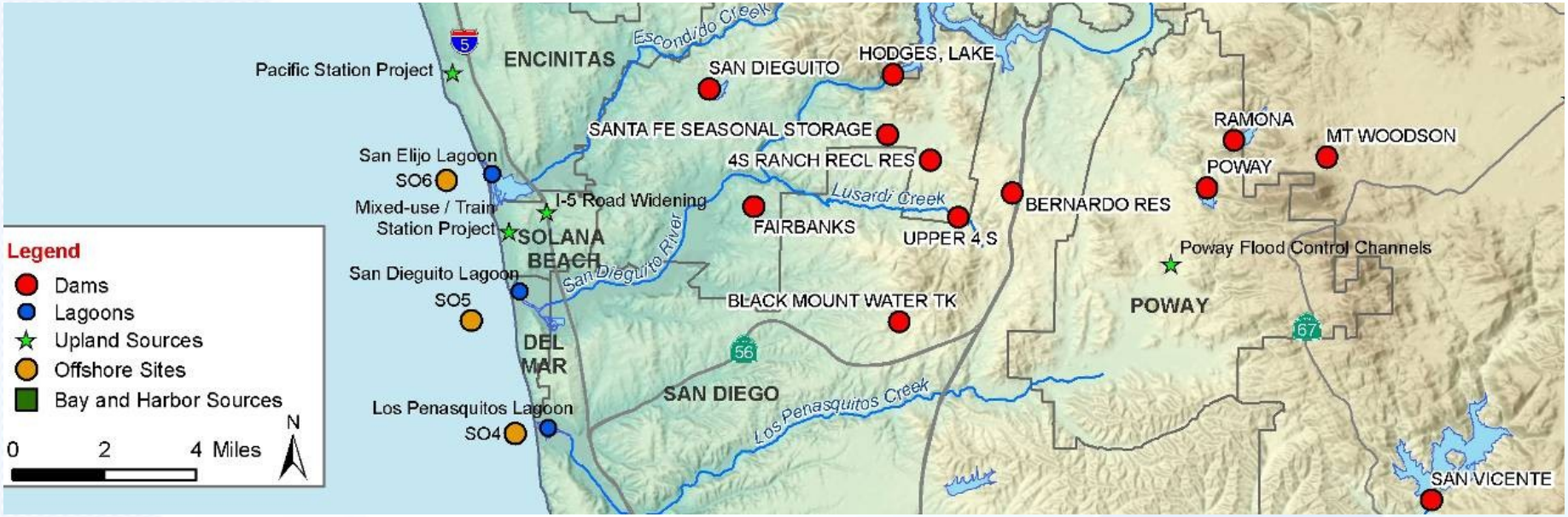
Coastal Processes



Biological Constraints Guide Coastal Source and Receiver Site Locations



Inland Sources



Plan Recommendations

- Implement Opportunistic Beach Fill Programs
- Continue maintenance dredging operations
- Implement large-scale projects (SANDAG, USACE, Harbor By-Passing)
- Strongly consider Sediment Management Devices, such as artificial submerged reefs

Implementation

- Build on regional momentum – SANDAG Member efforts
  - ~ Two Regional Beach Nourishment Projects (RBSP I & II)
  - ~ Six opportunistic beach programs
  - ~ Active Shoreline Preservation Working Group
- Proactively address obstacles
  - ~ Stakeholder issues
  - ~ Regulatory – TMDL's, MLPA's, EPA "Rule of Thumb"
- Funding opportunities
  - ~ Transient Occupancy Tax
  - ~ Quality of Life

Potential Governance Actions

- Add to CEQA Initial Study Checklist
- Rely on the California Coastal Act
- Add to/Amend Local Coastal Plans
- City/County Grading Permits
- Incentives through reduced developer fees
- Local Zoning Ordinances and General Plans
- Establish “Sandsheds/Littoral Cell” Planning Agencies
- Regional General Permits

Data Gaps and Needed Analysis

- Sediment gradation data for all remaining Coastal RSM Plan beaches
- More complete and updated on and offshore sediment source information throughout the region as a standardized data set
- Evaluate actual project performance and compare results to model predictions
- Assess the effect of sediment management devices

Sediment Management Plan Partners

- California Department of Boating and Waterways (DBW)
- Coastal Sediment Management Workgroup (CSMW)
  - ~ Army Corps of Engineers
  - ~ California Natural Resources Agency
  - ~ And others
- Shoreline Preservation Working Group
- Consultant Team
  - ~ Moffatt and Nichol
  - ~ Science Applications International Corporation (SAIC)
  - ~ Everest International

Process for Preparation

- Public outreach
  - ~ Four public workshops
  - ~ Shoreline Preservation Working Group meetings
- Plan approval
  - ~ SANDAG and coastal city staff
  - ~ Shoreline Preservation Working Group
  - ~ Regional Planning Committee
  - ~ Board of Directors

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